MATERIAL SAFETY DATA SHEET

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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURERS NAME W.M. BARR & COMPANY, INC.

ADDRESS 2105 Channel Ave.

Memphis, TN 38113

EMERGENCY CONTACT EMERGENCY TELEPHONE #1 901-775-0100

W.M. Barr Technical Services

EMERGENCY INFORMATION

24 HOUR MEDICAL EMERGENCY #, 800 451-8346 SEE SECTION 5 FOR ADDITIONAL EMERGENCY INFORMATION

INVENTORY ITEM #

QKK5.1

PRODUCT NAME KS KLEAN KUTTER 1 QT

REVISION DATE REVISED BY W.M. Barr Technical Services

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CARCINOGENICITY CAS# 67-56-1 75-09-2 872-50-4 METHANOL PERC SUBSTANCE DESCRIPTION PERCENT NTP ACGIH OSHA IARC

30= 35 25- 30 1- 5 N N Y Y N N N Y N METHANGE METHYLENE CHLORIDE 1-METHYL-2-PYRROLIDONE ALCOHOLS SOLVENT BLEND ACETONE, RECOVERED TOLUENE N/A N/A N N N N N N N N N N N N N N N 10- 15 15- 20 5- 10 108-88-3

SECTION 3. REGULATORY INFORMATION EXPOSURE LIMITS/REGULATORY INFORMATION

TWA SUBSTANCE DESCRIPTION REG.AGCY U/M ia stel CEIL SKIN 200.00 200.00 METHANOL acgih Obha 250.00 250.00 N/E 200.00 N/E N/E 125.00 1000.00 50.00 **2**5.00 METHYLENE CHLORIDE PPM

PPM

OSHA PEAK CONCENTRATION FOR 8HR 8HIFT: 2000 PPM FOR 5 MIN. IN ANY 2 HR8. EMPLOYER8 ARE REQUIRED TO CONDUCT INITIAL MONITORING OF AIRBORNE METHYLENE CHLORIDE, (MC), CONCENTRATIONS AND TO CONDUCT PERIODIC (MC) EXPOSURE MONITORING FOR ALL TASKS WHERE EMPLOYEE EXPOSURES ARE ABOVE ACTION LEVEL (12.5 PPM, 8-HR TWA) OR STEL. NTP-ANTICIPATED CARCINOGEN, IARC POSSIBLE CARCINOGEN (2B), ACGIH-GUSPECTED CARCINOGEN (A2), NIOSH-DEFINED CARCINOGEN. (MC) HAS CAUSED CANCER IN CERTAIN LABORATORY ANIMAL TESTS. RISK TO YOUR HEALTH DEPENDS ON LEVEL AND DURATION OF EXPOSURE.

OSHA

1-METHYL-2-PYRROLIDONE ACGIH OSHA N/E N/E

RECOMMENDED EXPOSURE LIMIT: 100 PPM TWA, AS PROVIDED BY SUPPLIER.

ACGIH ALCOHOLS PPM 200.00 250.00 250.00 N/E N/E N/E 200.00 OSHA

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PACE

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	SECTION 3.	REGULATO		ATION				
SOLVENT BLEND		acgih Obha	PPM PPM	N/E N/E	N/E N/E	N/E N/E	N N	N/E N/E
ACETONE, RECOVERED		acgih obha	PPM PPM	N/E N/E	N/E N/E	N/E N/E	N N	N/E N/E
TOLUENE		acgih Oêha	PPM PPM	50.00 N/E 1	N/E 50.00	N/E 100.00	Y N	N/E 200.00

OSHA PEAK CONCENTRATION FOR 8 HR. SHIFT: 500 PPM FOR 10 MINUTES.

ADDITIONAL REGULATORY INFO
The time weighted average (TWA) value described herein is a threshold limit value (TLV) as established by ACGIH. The permissible exposure limit (PEL) is a value established by OSHA.

 ${\tt SEC.~313~SUPPLIER~NOTIFICATION}$ The following information must be included in all MSDS that are copied and distributed for this material.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372):

PERCENT BY WEIGHT (UPPER LIMIT)	Cae#
35	67-56-1
	75-09-2 872-50-4
5	N/A
10	67-64-1 108-88-3
	(UPPER LIMIT) 35 30 5 5

CLEAN AIR ACT

This formula contains no known ozone depleting chemicals.

HAZARD COMMUNICATION STANDARD

This document is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). This MSDS contains thirteen (13) sections.

The following effects and/or symptoms are not expected to be experienced by persons who use this product properly and according

to ALL instructions, precautions, and warnings; however, should the product user experience ANY questionable effects or symptoms, the product user should immediately seek medical attention.

SECTION 4. HAZARDS IDENTIFICATION

INHALATION ACUTE EXPOSURE EFFECTS Vapor harmful. May cause dizziness; headache; watering of eyes; drowsiness; irritation of respiratory tract; weakness; nausea; drowsiness; irritation of respiratory tract; weakness; nausea; muscle twitches; numbness in fingers, arms, and legs; depression of central nervous system; irritation of eyes; hot flashes; loss of appetite; spotted vision; fatigue; dilation of pupils; increase of carboxyhemoglobin levels, which can cause stress to the cardiovascular system; arm, leg and chest pains; vomiting; loss of coordination; visual disturbances; giddiness and intoxication; sleepiness; cough and dypsnea; cold, clammy extremeties; narcosis; diarrhea; hallucinations; light-headedness; anesthesia; suffocation;

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SECTION 4. HAZARDS IDENTIFICATION (CONTINUED)

confusion; brain damage; irregular or rapid heartbeat; convulsions; loss of coordination; drowsiness; defatting; unconsciousness; coma; and death.

Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal. Elevated carboxyhemoglobin levels can be additive to the increase caused by smoking and other carbon monoxide sources.

EKIN CONTACT ACUTE EXPOSURE EFFECTS
This product is a skin irritant. May be absorbed through the skin, if contact with skin is prolonged. May cause irritation; drying and cracking of skin; numbness in fingers and arms; defatting of skin; burning; redness;inflammation; keratitis; and dermatitis.
May cause additional symptoms listed under inhalation. May increase severity of symptoms listed under inhalation.

EYE CONTACT ACUTE EXPOSURE EFFECTS
This material is an eye irritant. May cause irritation; redness; tearing; blurred vision; burns; stinging; swelling; temporary corneal damage; conjunctivitis of eyes; and corneal ulcerations of the eye. Vapors may irritate eyes.

INGESTION ACUTE EXPOSURE EFFECTS
POISON. CANNOT BE MADE NON-POISONOUS. May be fatal or cause
blindness. Harmful or fatal if swallowed. May cause dizziness;
headache; nausea; vomiting; loss of coordination; drowsiness;
weakness; stupor; irritation and burning sensation in mouth, throat, and stomach; gastrointestinal irritation; fatigue; depression of the central nervous system; narcosis; diarrhea; loss of appetite; liver, kidney, and heart damage; coma; and death.
May produce symptoms listed under inhalation.
Liquid aspirated into lungs, during vomiting, may cause chemical pneumonia and systemic effects.

CHRONIC EXPOSURE EFFECTS

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis. Prolonged skin contact may result in absorption of a harmful amount of this contact may result in absorption of a harmful amount of this material. May cause giddiness; insomnia; gastric disturbances; dizziness; headache; weakness; fatigue; nausea; skin irritation; numbness in hands and feet; pancreatic damage; permanent central nervous system changes; decreased response to visual and auditory stimulation; some loss of memory; visual impairment or blindness; brain damage; redness, burning and cracking of skin; conjunctivitis; anemia; hallucinations; changes in blood; jaundice; bone marrow damage; kidney damage; liver damage; heart palpitations; blood disorders; and death. May cause additional symptoms listed under inhalation. listed under inhalation.

MEDICAL CONDITIONS AGGRAVATED

Diseases of the blood, skin, eyes, liver, kidneys, lungs, asthma, inflammatory or fibrotic pulmonary disease; alcoholism; cardiovascular system and respiratory system; and rhythm disorders of the heart

PRIMARY ROUTE OF EXPOSURE

Inhalation, ingestion, and dermal.

SECTION 5. FIRST AID MEASURES

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

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5. FIRÊT AID MEASURES SECTION 5. FIRST AID MEASURES (CONTINUED)

SKIN CONTACT

Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

 $\mbox{\bf EYE}$ CONTACT Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

INGESTION

Call your poison control center, hospital emergency room or physician immediately for instructions to induce vomiting.

NOTE TO PHYSICIAN

NOTE TO PHYSICIAN
POISON. THIS PRODUCT CONTAINS METHANOL AND METHYLENE CHLORIDE.
Methanol is metabolized to formaldehyde and formic acid. These
metabolites may cause metabolic acidosis, visual disturbances, and
blindness. Since metabolism is required for these toxic symptoms,
their onset may be delayed from 6 to 30 hours following ingestion.
Ethanol competes for the same metabolic pathway and has been used
as an antidote. Methanol is effectively removed by hemodialysis. as an antique. Mechanol is effectively removed by nemodiarysis.

Adrenalin should never be given to a person overexposed to methylene chloride. This formula is registered with POISINDEX.

Call your local poison control center for further information.

Section	6.	FIRE	FIGHTING	MEASURES

HAZARD RATING SOURCE	HMIS	NFPA
HEALTH	2	2
FLAMMABILITY	3	3
REACTIVITY	0	0
OTHER	G	NA

FLASH METHOD

FLASH POINT

-6.66 C

LOWER EXPLOSION LIMIT

GENERAL COMMENTS

OSHA FLAMMABILITY: Class IB

EXTINGUISHING METHOD

Use carbon dioxide, dry powder, or foam.

FIRE FIGHTING PROCEDURES

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

FIRE AND EXPLOSION HAZARDS

DANGER! EXTREMELY FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS, FLAME AND ALL OTHER SOURCES OF IGNITION. VAPORS MAY CAUSE FLASH FIRE OR IGNITE EXPLOSIVELY.

Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition during use and until all vapors are gone. Beware of static electricity that may be generated by synthetic clothing and other

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SECTION 6. FIRE FIGHTING MEASURES (CONTINUED)

sources. Contact of liquid or vapor with flame or hot surfaces will produce toxic gases and a corrosive residue that will cause deterioration of metal.

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Section 7. Accidental release measures

CLEAN-UP

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. SMALL SPILLS: take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. LARGE SPILLS: dike far ahead of spill for later disposal.

For transportation related spills contact Chemtrec at 1-800-424-9300 for emergency assistance.

WASTE DISPOSAL

Dispose in accordance with applicable local, state and federal regulations.

SECTION 8. HANDLING AND STORAGE

Store in a cool, dry place. Exposure to high temperatures or prolonged exposure to sun may cause can to leak or swell. Once opened, remover should be used within six months or discarded to avoid can deterioration. Do not store near flames or at elevated temperatures.

HANDLING

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

SECTION 9. TRANSPORT INFORMATION

TRANSPORTATION

For D.O.T. information, contact W.M. Barr Technical Services Department.

SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering -STOP - ventilation is inadequate. Leave area immediately.

RESPIRATORY PROTECTION

RESPIRATORY PROTECTION

For OSHA controlled work place and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved self-contained breathing apparatus for chlorinated solvent vapors. A dust mask does not provide protection against vapors.

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SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

SKIN PROTECTION

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

OTHER PROTECTION

Various application methods can dictate use of additional protective various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES

VOLATILE \$ 98.35

by weight

BOILING POINT 103.00 F

39.44 C BOILING RANGE: 103 F - 285 F

VAPOR DENSITY (Air = 1.0) Heavier than air

EVAPORATION RATE

Slower than ether

BULK DENSITY 7.50

1bs/gal at 75 degrees F

ph FACTOR

PHOTOCHEMICALLY REACTIVE

MAX V.O.C. 443 grams per liter

MAX VAPOR PRESSURE

40mm Hg at 20 degrees C

SECTION 12. STABILITY AND REACTIVITY

INCOMPATIBILITIES

Incompatible with strong oxidizing agents; strong caustics; chemically active metals such as aluminum or magnesium; sodium; potassium; nitric acid; reducing agents; halogens; molten sulphur; strong alkalis; oxygen; nitrogen peroxide.

Thermal decomposition may produce carbon monoxide; carbon dioxide; hydrogen chloride; small quantities of phosgene; formaldehyde; oxides of nitrogen; chlorine gas; and unidentified organic compounds in black smoke.

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SECTION 12. STABILITY AND REACTIVITY (CONTINUED)

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POLYMERIZATION

Will not occur.

STABILITY

SECTION 13. ADDITIONAL INFORMATION

IMPORTANT NOTE

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

LEGEND:

PPM = parts per million
MG/M3 = milligrams per cubic meter
N/E or NE = none established
GT = greater than TCC = tag closed cup
TCC = tag closed cup
TCC = tag open cup
PMCC = Pensky-Martens closed cup
IDLH = Immediately Dangerous to Life and Health

END OF MSDS